

Notice of Allowability

Application No.

09/551,051

Examiner

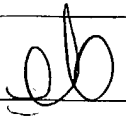
Callie E. Shosho

Applicant(s)

BASAK ET AL.

Art Unit

1714



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 2/12/04 and telephonic interview conducted 2/25/04.
2. ☒ The allowed claim(s) is/are 14-19.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 2/25/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Callie E. Shosho
Primary Examiner
Art Unit: 1714

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) Claim 14, line 2, after "water" and before "vehicle", delete "EtOH" and insert "ethanol".

(2) Claim 15, line 3, after "300 nm," and before "an", delete "and showing" and insert "which is".

(3) Claim 16, line 1, after "15" and before "comprising", delete "further".

(4) Claim 16, line 2, after "water" and before "vehicle", delete "EtOH" and insert "ethanol".

(5) Claim 17, line 3, after "2.8" and before ",", insert "cP".

(6) Claim 18, line 7, after "300 nm," and before "an", delete "and showing" and insert "which is".

2. Authorization for this examiner's amendment was given in a telephone interview with Richard Beck on 2/25/04.

Statement of Reasons for Allowance

3. The present claims are allowable over the “closest” prior art Doi et al. (U.S. 6,378,999) and Zhu (U.S. 5,889,083) for the following reasons:

Doi et al. disclose ink jet ink comprising 0.5-20% pigment, 0.002-10% dispersant including those obtained from styrene and acrylic acid, 1-10% solvent including ethanol, 0.01-3% surfactant, biocide, humectant, and water. The ink has conductivity of 500-7400 $\mu\text{S}/\text{cm}$, viscosity of 1.5-10 mPa s, and pH of 4.5-9.5. It is further disclosed that the dispersant is a copolymer obtained from hydrophilic monomer and hydrophobic monomer or salt thereof wherein the salts include onium salts of ammonium ion.

Doi et al. disclose that the number average particle size of the ink is 15-200 nm while the volume average particle size of the ink is 30-250 nm. However, there is no disclosure in Doi et al. that the particle size of the ink is about 280-300 nm as required in all the present claims. Further, there is no disclosure in Doi et al. that the particle size of the ink, i.e. 280-300 nm, is an increase of about 10-15 nm from dry pigment particles.

Zhu discloses aqueous ink jet possessing viscosity of 1.6-7 cP, conductivity of 500-20,000 $\mu\text{S}/\text{cm}$, 0.1-10% pigment, and binder neutralized with ammonium hydroxide. However, there is no disclosure of the particle size of the ink or the surface tension of the ink as required in all the present claims. Further, with respect to present claim 18, it is noted that there is no disclosure in Zhu that the ink comprises ethanol as required in the claim.

Thus, it is clear that Doi et al. or Zhu, either alone or in combination do not disclose or suggest the present invention.

In light of the above, it is clear that the rejections of record are untenable and so, the present claims are passed to issue.

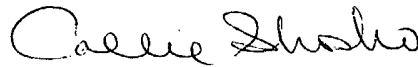
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS

2/26/04